

## Fall Applied Herbicides in Soybean - Study 2.

Project Code: 03-11C-E100 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA  
 Trial Status: Final Updated: 11-20-03

## Objective:

Evaluate the performance of various fall applied herbicides in soybean.

Weed Code	Common Name	Scientific Name
1. ALLVI	garlic, wild	Allium vineale L.
2. STEME	chickweed, common	Stellaria media (L.) Vill.
3. LAMAM	henbit	Lamium amplexicaule L.
4. SETFA	foxtail, giant	Setaria faberi Herrm.
5. AMBEL	ragweed, common	Ambrosia artemisiifolia L.

Crop 1: GLXMA soybean Variety: Asgrow 4403 RR  
 Planting Method: Seeded Planting Date: 6-2-03  
 Rate: 75 lb/A Depth: 1.0 IN  
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 27 FT Reps: 3  
 Tillage Type: No-Till Study Design: Randomized complete block  
 Previous Crop, Year: ZEAMX, 2002

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K2O 200 LB/A

Soil Name: Ebbert % OM: 1.7 pH: 6.0 CEC: 12  
 Texture: Silt loam Fert. Level: P1: 68 LB/A, K: 225 LB/A

## APPLICATION DESCRIPTION

A  
 Application Date: 11-20-02  
 Time of Day: 11:00  
 Application Method: Spray  
 Application Timing: FALL  
 Applic. Placement: BROFOL  
 Air Temp., Unit: 46 F  
 % Relative Humidity: 66  
 Wind Velocity, Unit: 3 MPH  
 Soil Moisture: NORMAL

## CROP STAGE AT EACH APPLICATION

A  
 Crop 1 Code, Stage: GLXMA NA  
 Height, Unit: NA NA

## WEED STAGE AT EACH APPLICATION

A  
 Weed 1 Code: ALLVI  
 Stage(leaves): 3-4  
 Height(inches): 4-8  
 Density: Medium  
 Weed 2 Code: STEME  
 Stage(leaves): 10+  
 Height(inches): 0-1  
 Density: Low  
 Weed 3 Code: LAMAM  
 Stage(leaves): 10+  
 Height(inches): 0-1  
 Density: Medium

## APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO2 sprayer
Operating Pressure:	40 PSI
Nozzle Type:	Flat fan
Nozzle Size:	8003
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	20 GPA

## NOTES:

Not harvested.

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Weed Code	ALLVI	ALLVI	ALLVI	ALLVI	STEME	STEME	STEME	STEME	LAMAM	LAMAM	LAMAM	LAMAM	SETFA
Crop Code													
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	12-9-02	3-1-03	4-1-03	5-20-03	12-9-02	3-1-03	4-1-03	5-20-03	12-9-02	3-1-03	4-1-03	5-20-03	5-20-03
Trt-Eval Interval	19 DA-A	101 DA-A	132 DA-A	181 DA-A	19 DA-A	101 DA-A	132 DA-A	181 DA-A	19 DA-A	101 DA-A	132 DA-A	181 DA-A	181 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code													
1	NONTREATED									0	0	0	0	0	0	0	0	0	17			
2	CANOPY XL	56.3	WG			4.5	OZ/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	90	
2	->CLASSIC	25	WG	0.0263	LB A/A			FALL	A													
2	->AUTHORITY	75	WG	0.1317	LB A/A			FALL	A													
2	EXPRESS	75	WG	0.007	LB A/A	0.15	OZ/A	FALL	A													
2	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A													
2	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A													
3	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	100	0
3	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													
4	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	100	30
4	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													
5	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	100	85
5	VALOR	51	WG	0.064	LB A/A	2	OZ/A	FALL	A													
5	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													
6	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	100	0
6	DUAL II MAGNUM	7.64	EC	1.0	LB A/A	1.05	PT/A	FALL	A													
6	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													
7	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	100	0
7	BOUNDARY	6.5	EC	0.975	LB A/A	1.2	PT/A	FALL	A													
7	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													
8	BOUNDARY	6.5	EC	0.975	LB A/A	1.2	PT/A	FALL	A	0	87	0	0	0	100	100	100	0	100	100	100	0
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A													
9	GLYPHOMAX PLUS	3	SL	0.375	LB AE/A	16	OZ/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	100	27
9	PYTHON	80	WG	0.05	LB A/A	1	OZ/A	FALL	A													
9	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A													
9	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	FALL	A													
9	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													
10	GLYPHOMAX PLUS	3	SL	0.375	LB AE/A	16	OZ/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	100	0
10	PYTHON	80	WG	0.05	LB A/A	1	OZ/A	FALL	A													
10	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	FALL	A													
10	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	FALL	A													
10	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													

Weed Code	ALLVI	ALLVI	ALLVI	ALLVI	STEME	STEME	STEME	STEME	LAMAM	LAMAM	LAMAM	LAMAM	SETFA
Crop Code													
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	12-9-02	3-1-03	4-1-03	5-20-03	12-9-02	3-1-03	4-1-03	5-20-03	12-9-02	3-1-03	4-1-03	5-20-03	5-20-03
Trt-Eval Interval	19 DA-A	101 DA-A	132 DA-A	181 DA-A	19 DA-A	101 DA-A	132 DA-A	181 DA-A	19 DA-A	101 DA-A	132 DA-A	181 DA-A	181 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code													
11	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	FALL	A	0	90	87	87	0	100	100	100	0	100	100	30	
11	PYTHON	80	WG	0.05	LB A/A	1	OZ/A	FALL	A													
11	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A													
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	FALL	A													
11	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													
12	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	FALL	A	0	90	70	70	0	100	100	100	0	100	100	100	63
12	2,4-D LV4	3.8	EC	0.75	LB AE/A	1.58	PT/A	FALL	A													
12	PRIME OIL COC	100	LIQ	1.0	QT/A	1	QT/A	FALL	A													
13	SENCOR	75	WG	0.47	LB A/A	10	OZ/A	FALL	A	0	90	80	80	0	100	100	100	0	100	100	100	90
13	2,4-D LV4	3.8	EC	0.75	LB AE/A	1.58	PT/A	FALL	A													
13	PRIME OIL COC	100	LIQ	1.0	QT/A	1	QT/A	FALL	A													
14	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	FALL	A	0	90	53	53	0	100	100	100	0	100	100	100	30
14	2,4-D LV4	3.8	EC	0.75	LB AE/A	1.58	PT/A	FALL	A													
14	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	FALL	A													
15	SENCOR	75	WG	0.47	LB A/A	10	OZ/A	FALL	A	0	90	0	0	0	100	100	100	0	100	100	100	30
15	2,4-D LV4	3.8	EC	0.75	LB AE/A	1.58	PT/A	FALL	A													
15	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	FALL	A													
16	AIM	2	EW	0.0078	LB A/A	0.5	OZ/A	FALL	A	0	90	80	80	0	100	100	100	0	100	100	100	0
16	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A													
16	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A													
17	AIM	2	EW	0.0078	LB A/A	0.5	OZ/A	FALL	A	0	90	87	87	0	100	100	100	0	100	100	100	0
17	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	FALL	A													
17	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A													
18	AIM	2	EW	0.0078	LB A/A	0.5	OZ/A	FALL	A	0	87	0	0	0	100	100	100	0	100	100	100	0
18	SPARTAN	75	WG	0.14	LB A/A	3	OZ/A	FALL	A													
18	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A													
19	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	100	30
19	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	FALL	A													
19	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													
20	PROWL H2O	3.8	CS	1.19	LB A/A	2.5	PT/A	FALL	A	0	90	90	90	0	100	100	100	0	100	100	100	0
20	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	FALL	A													
20	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A													
LSD (P=.05)										0.0	2.9	17.8	17.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.2	
Replicate F										0.000	2.111	2.412	2.412	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.197
Replicate Prob(F)										1.0000	0.1351	0.1032	0.1032	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.8218
Treatment F										0.000	382.750	33.186	33.186	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.429
Treatment Prob(F)										1.0000	0.0001	0.0001	0.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0006

Weed Code  
Crop Code  
Rating Data Type  
Rating Unit  
Rating Date  
Trt-Eval Interval

AMBEL  
Control  
Percent  
5-20-03  
181 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	
1	NONTREATED									47
2	CANOPY XL	56.3	WG			4.5	OZ/A	FALL	A	90
2	->CLASSIC	25	WG	0.0263	LB A/A			FALL	A	
2	->AUTHORITY	75	WG	0.1317	LB A/A			FALL	A	
2	EXPRESS	75	WG	0.007	LB A/A	0.15	OZ/A	FALL	A	
2	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A	
2	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A	
3	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	FALL	A	30
3	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	
4	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A	0
4	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	
5	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A	25
5	VALOR	51	WG	0.064	LB A/A	2	OZ/A	FALL	A	
5	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	
6	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A	0
6	DUAL II MAGNUM	7.64	EC	1.0	LB A/A	1.05	PT/A	FALL	A	
6	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	
7	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A	30
7	BOUNDARY	6.5	EC	0.975	LB A/A	1.2	PT/A	FALL	A	
7	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	
8	BOUNDARY	6.5	EC	0.975	LB A/A	1.2	PT/A	FALL	A	17
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A	
9	GLYPHOMAX PLUS	3	SL	0.375	LB AE/A	16	OZ/A	FALL	A	57
9	PYTHON	80	WG	0.05	LB A/A	1	OZ/A	FALL	A	
9	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A	
9	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	FALL	A	
9	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	
10	GLYPHOMAX PLUS	3	SL	0.375	LB AE/A	16	OZ/A	FALL	A	57
10	PYTHON	80	WG	0.05	LB A/A	1	OZ/A	FALL	A	
10	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	FALL	A	
10	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	FALL	A	
10	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	
11	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	FALL	A	90
11	PYTHON	80	WG	0.05	LB A/A	1	OZ/A	FALL	A	
11	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A	
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	FALL	A	
11	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	

Weed Code  
Crop Code  
Rating Data Type  
Rating Unit  
Rating Date  
Trt-Eval Interval

AMBEL  
Control  
Percent  
5-20-03  
181 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	
12	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	FALL	A	27
12	2,4-D LV4	3.8	EC	0.75	LB AE/A	1.58	PT/A	FALL	A	
12	PRIME OIL COC	100	LIQ	1.0	QT/A	1	QT/A	FALL	A	
13	SENCOR	75	WG	0.47	LB A/A	10	OZ/A	FALL	A	33
13	2,4-D LV4	3.8	EC	0.75	LB AE/A	1.58	PT/A	FALL	A	
13	PRIME OIL COC	100	LIQ	1.0	QT/A	1	QT/A	FALL	A	
14	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	FALL	A	60
14	2,4-D LV4	3.8	EC	0.75	LB AE/A	1.58	PT/A	FALL	A	
14	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	FALL	A	
15	SENCOR	75	WG	0.47	LB A/A	10	OZ/A	FALL	A	57
15	2,4-D LV4	3.8	EC	0.75	LB AE/A	1.58	PT/A	FALL	A	
15	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	FALL	A	
16	AIM	2	EW	0.0078	LB A/A	0.5	OZ/A	FALL	A	87
16	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A	
16	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A	
17	AIM	2	EW	0.0078	LB A/A	0.5	OZ/A	FALL	A	60
17	EXPRESS	75	WG	0.0047	LB A/A	0.1	OZ/A	FALL	A	
17	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A	
18	AIM	2	EW	0.0078	LB A/A	0.5	OZ/A	FALL	A	60
18	SPARTAN	75	WG	0.14	LB A/A	3	OZ/A	FALL	A	
18	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A	
19	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	FALL	A	57
19	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	FALL	A	
19	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	
20	PROWL H2O	3.8	CS	1.19	LB A/A	2.5	PT/A	FALL	A	47
20	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	FALL	A	
20	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A	
LSD (P=.05)										61.0
Replicate F										5.149
Replicate Prob(F)										0.0105
Treatment F										1.519
Treatment Prob(F)										0.1341

Fall Applied Herbicides in Soybean - Study 2.

Project Code: 03-11C-E100      Location: Belleville Research Center

Trial Comments

1. Protocol: Syngenta, Dow AgroSciences, Bayer, FMC, and BASF.
2. Ratings: WC Dec 1, March 1, April 1, at planting, and 28 DAP.
3. Blanket POST application of Roundup WeatherMax 0.75 lbae/A + AMS 2.0% applied 10 ft wide to all plots including the nontreated at 28 DAP.
4. DA-A = days after FALL application.
5. Weed control in the nontreated plots is a result of competition from other weeds.
6. The planned 28 DAP rating was not possible due to delayed planting.